

UNITED STATES DISTRICT COURT
DISTRICT OF SOUTH DAKOTA
SOUTHERN DIVISION

SIOUX STEEL COMPANY, a South
Dakota corporation,

Civ. 15-4136

Plaintiff,

vs.

KC ENGINEERING, P.C., an Iowa
corporation,

Defendant.

**DEFENDANT'S RESPONSIVE BRIEF
IN OPPOSITION TO
MOTION TO STRIKE**

Defendant KC Engineering, P.C. ("KC Engineering"), by and through its undersigned attorneys of record, respectfully submit this brief in opposition to Sioux Steel Company's ("Sioux Steel") motion to strike.

BACKGROUND

The underlying facts of this matter have already been extensively laid out in both KC Engineering's Brief in Support of Summary Judgment (Doc. 32) and Sioux Steel's Brief in Support of Motion to Strike (Doc. 35). Sioux Steel manufactured and sold a hopper bin (the "Hopper Bin") to Agropecuaria El Avion ("Agropecuaria"), which was installed at a Agropecuaria plant in Tepic, Mexico. While material was being discharged from the Hopper Bin by two Agropecuaria employees, the Hopper Bin failed and fatally injured said employees. According to Chad Kramer ("Kramer"), the engineer for Sioux Steel who designed the Hopper Bin, Kramer made a critical math error in the original design of the Hopper Bin. In fact, Kramer used the wrong formula, which resulted in under-designed vertical seams. However, the wrong formula only caused the vertical seams near the top of Hopper Bin to be under-designed, while the vertical seams near the bottom were not. (Tobin Aff., Ex A, Kramer Depo., 22).

I. Rod Nohr's Initial Report

After the collapse, Sioux Steel hired Rod Nohr ("Nohr"), a structural engineer, to investigate the failure of the Hopper Bin. (Tobin Aff. at Ex. B ("Nohr's Report"), p. 2). Nohr arrived just days after the incident occurred, in which he took extensive notes and photos of the damaged Hopper Bin and the surrounding site. (*Id.*, p. 3). Nohr also identified a security tape that had recorded the Hopper Bin's failure.¹ (*Id.*)

Nohr's report ultimately found that the Hopper Bin was filled with soymeal on January 28, 2015 and was not removed until the day of the incident, February 2, 2015—a total of 4.5 days. (*Id.*, p. 2). The weather had been humid and rainy and would have contributed to consolidation of the soymeal during this period. (*Id.*, p. 4). During this time period while the Hopper Bin was filled to capacity, the Hopper Bin's under-designed vertical seams did not fail. Nohr also found that the Hopper Bin collapsed after five to six minutes once the employees started to discharge the soymeal. (*Id.*, p. 4). Nohr further found that, during the evacuation, a void area in the bin existed and a stationary, bridged, soymeal dome in the nearly full bin was intact, above the void, during discharge. (*Id.*) This "bridge" occurred because:

When stored soymeal in a bin remains stationary for a long-time period, the cohesive soymeal settles, consolidates, and stick together in a non-free flowing mass. When discharge is started from a bin where soymeal has settled and consolidated, soymeal above the hopper discharge will empty leaving a void area with soymeal in the bin above unmoving and supported by a stationary arched dome of settled and consolidated soymeal.

(*Id.*) Thus, despite the under-designed vertical seams near the top of the Hopper Bin, Nohr found that:

The failure originated at the bin's hopper cone bottom immediately above the reclaim conveyor where hopper lower panel bolted vertical seams split and spread open. The bin's hopper cone bottom and lower hopper sheet panel vertical seams' failure and spreading open were caused by soymeal mass flow impact loading on

¹ Carson, in fact, completed an extensive review of this video recording, going frame-by-frame. (Tobin Aff., Ex. C, Carson Supplemental Report). After reviewing the footage, Carson again concluded that the failure began in the lower portion of the Hopper Bin. (*Id.*)

the bin's hopper cone bottom resulting from the sudden collapse of bridged and domed soymeal above into an emptied-out volume of void space in the hopper below. The sudden and rapid flow downward movement of the mass of soymeal in the bin above the hopper created a vacuum above the falling soymeal and below the hopper bin's roof, causing the roof to suddenly collapse into the in....The uncontrolled and violent downward mass flow of soymeal into the void area below caused enormous impact loading on the bin's hopper, which split and spread open from the cone bottom up.

(*Id.*, p. 4-5)(emphasis added).

II. John Carson's Qualifications

Given Nohr's findings, KC Engineering decided to retain John Carson ("Carson") as an expert to opine as to the "cause of the collapse and what role, if any, the work performed by KC Engineering in reviewing the design played in causing or contributing to the failure." (Tobin Aff., Ex. D ("Carson Report"), p. 4).

Carson's expert qualifications clearly demonstrate his "knowledge, skill, experience, training, and education" such that he is qualified to testify as to the causation of the collapse of a storage structure. Carson received his bachelor's degree in mechanical engineering at Northeastern University in Boston and both his masters and Ph.D. in mechanical engineering at M.I.T. (Carson Report, Appx. A). In 1970, Carson began working for the firm of Jenike & Johanson, Inc. ("J & J"), which is recognized as the world's leading authority on the science and engineering of bulk solids flows, processing, and storage. (Carson Report., 14). Carson is the Chairman of the Board of J & J. (Carson Aff. at ¶ 2). Carson has spent over forty-five (45) years in this field. (*Id.*) In addition to serving as an engineering consultant solving or preventing bulk solids handling, processing, and storage problems in industrial plants around the world, Carson has taught these subjects to thousands of engineers through short courses, performed research in this field, and has served as an expert witness in well over 50 litigations. (*Id.*) Carson has worked both as an engineering consultant and as an expert witness in the areas of silo design, silo loads, silo inspections, and silo failures. (*Id.*)

Carson is an expert on material propensity, the flow of materials, and the loads that bulk materials exert on storage structures. (Tobin Aff., Ex. E (“Carson Depo.”), 6). Carson has published extensively on the issues of structural failure of storage structures and analyzing the causes of failure. (Carson Depo., 7). Carson is also an expert on issues of how materials should be stored or handled, issues such as recirculation, the need for doing so, the use of flow aids, such as air cannons, the pressures that air cannons exert on materials and on storage structure, and issues of caking. (Carson Depo., 8).

Carson has been involved in numerous instances of looking at the failure of storage structures and determining the cause of said failure. (Carson Depo., 8). Carson has personally investigated well-over fifty hopper bins and silo failures. (Carson Aff. at ¶ 14). While Carson does not have formal education in structural engineering, he does have nearly five decades of direct experiences in and has written extensively on issues relating to forces exerted on bins and silos by the contents of these structures and the response of such structures to those forces. (*Id.*) Analysis of the forces exerted on storage structures in a wide range of industries (mining, chemical processing, power, agricultural, etc.) has been one of Carson’s main focuses of his engineering career. (Carson Aff., ¶ 15). Carson has given lectures on these subjects at various engineering meetings across North America and in several foreign countries. (*Id.*) Carson has also presented short courses on these subjects to mechanical and structural engineers at J & J client firms. (*Id.*)

Carson is not a licensed professional engineer²; however, Carson has practiced engineering for his clients by his education and training. (Carson Depo., 17). There is no requirement that Carson have a professional engineering license nor in his fifty (50) years of practice had Carson ever found it necessary nor had any of Carson’s clients required that he have

² Carson is also not a member of the National Society of Professional Engineers. (Carson Aff., ¶ 13).

a professional engineering license. (*Id.*). Carson never pursued a professional engineer license because his clients never asked for it nor had he ever been prohibited from doing the sort of work he does without one. (*Id.*, 18).

III. J & J's Prior Contact with Sioux Steel and Chad Kramer

In October of 2016, Carson was contacted by KC Engineering with the intent of being retained as an expert witness in this case. (Carson Aff., ¶ 4). As part of J & J's standard operating procedure, Carson ran a conflict check. (*Id.*) The conflict check resulted in Carson finding an entry in J & J's "Client Resources Management" software that had summarized several communications between J & J and Kramer of Sioux Steel. (*Id.*, ¶ 5, Ex. A). The entry note is the only document or record retained by J & J that relates to J & J's communications with Kramer.

According to that lone entry, on July 17, 2012, Chad Kramer of Sioux Steel contacted J & J about doing a possible design review of the Hopper Bin design at issue in this case. (Carson Report., 12; Carson Depo., 19). Tom Baxter, a senior consultant at J & J requested that Kramer provide more information on the silo design, type of grain being handled, and what level of review was necessary. (*Id.*) At some point, assembly drawings may have been provided by Kramer to J & J, however, these drawings have not been identified to-date. (Carson Depo., 20). Subsequently, Greg Petro, a senior structural engineer for J & J who has since passed away, had a phone call with Kramer and concluded from that call that the loads J & J engineers would use to design such silos would be higher than what Sioux Steel was using and, therefore, there was no need to prepare a proposal since there was no likelihood that Sioux Steel would accept it. (Carson Report, 12; Carson Aff., ¶ 9).

Carson, at no point prior to the conflict check, was aware or involved in any of the communications between Kramer and J & J. (Carson Aff., ¶ 7). Carson also had no knowledge

of what documents, plans, or designs, if any, that may have been sent by Kramer to J & J. (*Id.*, ¶ 8). At no point had Carson ever had personal contact with Sioux Steel, or any of its representatives or employees, prior to the commencement of this litigation. (*Id.*, ¶ 3). Moreover, since Kramer's communications with J & J occurred years prior to this litigation, there were obviously no discussions regarding litigation strategies, litigation theories, potential litigation witnesses, or the strengths and weaknesses of the case. (*Id.*, ¶ 12).

IV. Carson's Opinions Related to EP 433

One of the arguments for which Sioux Steel seeks to exclude Carson's testimony rests on Carson's opinions as they related to ANSI/ASAE EP 433 ("EP 433"). Carson's opinion is that it was not appropriate for Sioux Steel to use EP 433 to design the Hopper Bin as soybean meal is a non-free-flowing material and that EP 433 does not contemplate the use of non-free flowing materials. (Carson Report, 6). Carson explains that EP 433 is titled "Loads exerted by free-flowing grain on bins" and Section 1.1, entitled "Purpose" further defines this restriction, noting the code's "methods of estimating grain pressures within centrally loaded and unload bins used to store free-flowing agricultural whole grain." (*Id.*; Carson Aff., ¶ 19; Tobin Aff., Ex. F ("EP 433")). As soymeal is not an agricultural whole grain, EP 433 is not an appropriate document to use when calculating loads exerted on the walls of a bin used to store it. (Carson Aff., ¶ 20).³ In

³ Paragraph 5.4.2 of EP 433 states that when grains stored in a bin absorb moisture, there is an increase in bin wall pressure and that to prevent as much, a grain bin should be designed, located, and managed to prevent grain moisture contents from increasing more than one or two percent during storage. It follows that if an agricultural grain were to become non-free flowing, due to an increase in moisture of more than one to two percent, then EP 433 would no longer be applicable. (Carson Aff., ¶ 21).

addition, soymeal is often non-free flowing—something that is well-known and understood in the agricultural industry—and another reason why EP 433 is not applicable to bins designed to store soymeal.⁴ (*Id.*)

This issue was further addressed in Carson’s deposition. Carson testified that EP 433 “says nothing about what happens when the grain becomes non-free-flowing” and that EP 433 is silent as to this issue. (*Id.*, 27-28). Carson went on to testify that, on its face, EP 433 does not apply to non-free-flowing materials:

- Q. And is it your interpretation of EP 433 that those material loads only apply when the material is free-flowing?
- A. Yes, sir. As far as EP 433 is concerned, absolutely.
- Q. Where else in the literature can I look for publications that would warn that EP 433 does not apply when a free-flowing material becomes non-free-flowing?
- A. I don’t recall specifically within the literature, *but it should be obvious to anyone, even without an engineering knowledge, to read the title of EP 433 and learn that it’s only applicable for free-flowing grains.*

(Carson Depo., 28)(emphasis added).

- A. ... *It’s – to me, it’s obvious to anyone reading the English language by the title of EP 433, by 1 – paragraph 1.1 that this only applies to free-flowing grain. If the grain becomes non-free-flowing, it should be obvious that this standard does not apply. I don’t know that anyone has to state that any more directly in any publication to make it obvious.*

(Carson Depo., 30)(emphasis added).

Carson reiterated multiple times for Sioux Steel that EP 433 is not appropriate for non-free-flowing materials:

- Q. Is it your opinion that EP 433 is not the appropriate standard for loading of grain and materials that have a bulk density of 55.3?

⁴ In fact, there is no bin design code in existence in the U.S. or internationally that deals with material-induced forces on bins and other storage structures when storing non-free-flowing materials. Based on my experience and training, the appropriate steps that an engineer should take when dealing with storage and flow of non-free-flowing materials involve: (1) altering the geometry and/or material of construction of the hopper (i.e., sloping portion of the bin) or eliminating the hopper altogether and using a flat bottom with an unloader that activates the full cross-section of the bin; (2) making operational changes to control the moisture, oil content, temperature, etc. of the potentially non-free-flowing material before it is placed in a bin so as to ensure that it is free-flowing; (3) continuously moving the material to prevent caking; and/or (4) adjusting the size of the bin to reduce pressures acting on the material to an acceptable level. (Carson Aff., ¶ 16).

- A. I wouldn't categorically say that, no. It depends on the properties of the grain as to whether EP 433 is appropriate, as I have stated in my Exhibit 28 opinions.

(Carson Depo., 22-23).

- A. Well, first of all, EP 433 – as I've stated in my report, EP 433 is not applicable to the design of this bin. So to say whether it was in accordance with or not is, in my mind, immaterial.

(Carson Depo., 23).

Carson emphasized that, by EP 433's own language, it does not contemplate the use of soybean meal, which is a non-free-flowing material:

- Q. Now, is there anything in EP 433, or any subsequent comments to EP 433, that would caution an engineer that it doesn't apply to materials that had the potential to become non-free-flowing?
- A. Certainly.
- Q. And where do you find that in EP 433?
- A. Right in the title to begin with. It says for free-flowing material. And then there's other statements which I've summarized in my report that elaborate on that issue.

(Carson Depo., 24).

Simply put, based on EP 433's definitions of flow patterns, the Hopper Bin discharged via funnel flow. (Carson Aff., ¶ 17). Paragraph 5.1.2.1 of EP 433 states that material-induced loads exerted on the walls of bins discharging in a funnel flow pattern can be predicted by using Janssen's equation and that "overpressures are not generated." (*Id.*, ¶ 18). This means that the pressure on the under-designed vertical seams would have been at its highest when the Hopper Bin was initially loaded. Carson confirmed that there is no change in the hoop pressures at the collar during discharge or unloading, which is "well-established in the literature" and "certainly

well-established in several other codes that are in existence....”⁵ (Carson Depo., 40). However, the Hopper Bin did not fail after it was filled nor while it remained full for approximately four and a half days prior to it being discharged. (Carson Aff., ¶ 23). Although the upper portion of the Hopper Bin was under-designed to meet proper safety factors, it was not under-designed to the point that failure would be predicted when it was loaded. (*Id.*, ¶ 22). Even though gravity-induced loads likely over-stressed the upper portion of the Hopper Bin, it was not stressed to a point of failure; in other words, the design flaws in the Hopper Bin ate up some of the safety factor, but they were not the cause of the Hopper Bin’s failure. (*Id.*, ¶ 23). As the Hopper Bin did not fail from gravity-induced loads, then loads greater than those imposed by gravity must have been present. (Carson Aff., ¶ 24). These so-called dynamic loads would have been what caused the Hopper Bin to fail. (*Id.*)

However, a bin that discharges via funnel flow, such as the Hopper Bin at issue, cannot develop dynamic loads, such as an arch or a rathole⁶, unless the material used in a funnel flow hopper bin is non-free flowing. (*Id.*, ¶ 25). Dynamic loads can also develop in a bin by the

⁵ When asked why EP 433 discusses dynamic loading, Carson stated that:

EP 433, in my opinion and I think in the opinion of most experts in this field, is a highly simplistic, very inadequate design code. There are many—well, not many. There are several codes and certainly a vast amount of literature that are consistent with my opinion, which is that if you have a funnel flow vessel, the change in pressures near the top of the hopper from an initial fill condition to a discharge condition is essentially zero. There is virtually no change in those pressures. That’s contrary to what’s stated here, I recognize. But, again, this is, again, a highly simplistic and not very well-presented document, in my opinion and the opinion of, I think, most experts in the field who have studied this area.

(Carson Depo., 41-42).

In fact, upon a cursory reading of EP 433, it is consistent with Carson’s opinion, that is, in a funnel flow model, there are no dynamic pressures. (EP 433-4.1.2.1; 5.1.2).

⁶ Ratholing, arching, and bridging are terms to describe when something causes the flow to be affected, either slowed down or stopped, which could be either a mechanical interruption or when it deals with the material itself, it has to do with something that happens to those particles to cause them either to not slide at the walls or to stop flowing. (Carson Depo., 43-44). These problems will not occur with free-flowing materials. (*Id.*). Ratholing is where the material sticks along the walls and there is a hole that goes right down the middle, and then the flow stops. (*Id.*, 46). “The terms arches and bridges are used...in the bulk solids to describe a stable obstruction to flow.” (Carson Report, p. 8, n. 31).

firing of air cannons. (*Id.*, ¶ 26). Had the material in the Hopper Bin been free-flowing, there would have been no dynamic loads from a collapsing arch or rathole nor would there have been any need to mount or fire air cannons. (*Id.*, ¶ 27). The Hopper Bin would never have failed. (*Id.*) Carson's opinion, similar to Nohr's report, is that the failure of the Hopper Bin started at the bottom of the bin. This portion of the Hopper Bin was not under-designed for gravity-induced loads, which is further proof that the cause of the failure was dynamic loads. (*Id.*, ¶ 28). Thus, had Kramer's mathematical errors that caused the upper portion of the Hopper Bin to be under-designed been remedied prior to the bin being filled then discharged, the bin would still have collapsed. (*Id.*, ¶ 29). This is because its design did not consider the storage of soymeal, a non-free flowing material. (*Id.*)

Interestingly enough, evidence in the record actually shows that the use of a non-free-flowing material gave Kramer concerns. In the summer of 2014, Les Garcia ("Garcia"), a salesperson for Sioux Steel, emailed Kramer about a request from Mexico for the same tank that had been sent to Agropecuaria, but with air cannons. (Tobin Aff., Ex. G). Garcia asked Kramer if he could base the quote for newly requested hopper bin based on the bin sent to Agropecuaria. (*Id.*). Kramer responded that he had "never dealt with air cannons" and had "no idea what types of loads they would place" on their bins. (*Id.*). Garcia responded that the same bin with air cannons was sold to Agropecuaria and that Garcia was troubled that Kramer was never consulted. (*Id.*). Kramer reiterated that he had no idea what kind of loads the cannons would place on the hopper structure, noting that the necessity of air cannons meant that the material being stored in said bins was not free-flowing. (*Id.*). Kramer then stated that he had concerns "with the eccentric loads that non-free-flowing materials could place on the hopper. The cannons are obviously placed to help flow the material better, but there is still reason for concern

in my mind.” (*Id.*) (emphasis added). Kramer then recommended that the size of the hopper for the new request be limited in size. (*Id.*)

Furthermore, Carson’s opinions as they relate to the dangers of storing soymeal in a hopper bin designed pursuant to EP 433 are not novel or unique. In fact, the majority of Sioux Steel’s competitors have warnings on their bins against the use of soymeal for the simple fact that soymeal is not free-flowing. (Tobin Aff., Ex. H, I, J, K & L).

It should not go unnoticed by this Court that the opinion of Nohr, the engineer initially hired by Sioux Steel to conduct the investigation of the Hopper Bin’s collapse, is very much aligned with Carson’s opinions. Both believe that the use of soymeal is what likely caused the Hopper Bin to collapse; an opinion that is bolstered by Kramer’s emails with Les Garcia and the industry standard of displaying warnings against the use soymeal in bins similar to the Hopper Bin by Sioux Steel’s competitors. In fact, Sioux Steel’s focus on EP 433 is a red herring designed to blunt KC Engineering’s defense that Agropecuaria’s use of soymeal ultimately caused the Hopper Bin to fail. As will be demonstrated throughout this brief, Sioux Steel’s focus on EP 433 is immaterial; the Hopper Bin was filled with soymeal, which it was not meant to hold, and thereafter collapsed. Sioux Steel’s objective is to create a distraction from this truth.

Given the above factual recitations, it should be apparent that (1) Carson is an extraordinarily qualified individual; (2) Carson’s opinions as they relate to EP 433 are based on Carson’s experience, knowledge, and education and said opinions are not subject to being stricken; (3) Carson’s opinions regarding air cannons help form a broader conclusion and, as such, these opinions should also not be stricken; and, lastly, (4) J & J’s prior contact with Kramer does not serve as a basis to exclude Carson as an expert.

LEGAL STANDARD

Rule 702 of the Federal Rules of Evidence states the following regarding the admissibility of testimony by an expert witness:

A witness who is qualified as an expert by knowledge, skill, experience, training, or education may testify in the form of an opinion or otherwise if: (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue; (b) the testimony is based on sufficient facts or data; (c) the testimony is the product of reliable principles and methods; and (d) the expert has reliably applied the principles and methods to the facts of the case.

See Fed. R. of Evid. 702; *Daubert v. Merrel Down Pharm., Inc.*, 509 U.S. 579, 597-98 (1993)(the Court had a gatekeeping role in evaluating whether proffered expert testimony meets the standard of Rule 702).

The district court considers the following factors in its attempt to determine whether proffered scientific evidence is scientifically valid:

In making the reliability determination, the court may consider: (1) whether the theory or technique can be or has been tested; (2) whether the theory or technique has been subjected to peer review or publication; (3) whether the theory or technique has a known or potential error rate and standards controlling the technique's operations; and (4) whether the theory or technique is generally accepted in the scientific community. Additional factors to consider include: whether the expertise was developed for litigation or naturally flowed from the expert's research; whether the proposed expert ruled out other alternative explanations; and whether the proposed expert sufficiently connected the proposed testimony with the facts of the case. This evidentiary inquiry is meant to be flexible and fact specific, and a court should use, adapt, or reject these factors as the particular case demands.

Berg v. Johnson & Johnson, 940 F. Supp. 2d 983, 988 (D.S.D. 2013) (internal quotations omitted).

“As long as the expert’s scientific testimony rests upon good grounds based on what is known, it should be tested by the adversary process with competing expert testimony and cross-examination, rather than excluded by the court at the outset.” *Johnson v. Mead Johnson & Co., LLC*, 754 F.3d 557, 562 (8th Cir. 2014). The “reliability inquiry must focus on methodology, not

conclusions.” *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 154, 118 S. Ct. 512, 523, 139 L. Ed. 2d 508 (1997). “Daubert quite clearly forbids trial judges to assess the validity or strength of an expert’s scientific conclusions, which is a matter for the jury.” *Id.*

The Eighth Circuit has called for the “liberal admission of expert testimony.” *Johnson v. Mead Johnson & Co., LLC*, 754 F.3d 557, 562 (8th Cir. 2014) (holding that the court resolves doubts about the usefulness of expert testimony in favor of admissibility); (citing *United States v. Finch*, 630 F.3d 1057, 1062 (8th Cir. 2011)); *Robinson v. GEICO Gen. Ins. Co.*, 447 F.3d 1096, 1100 (8th Cir. 2006) (holding that expert testimony should be admitted if “advances the trier of fact’s understanding to any degree”); *Wood v. Minn. Mining & Mfg. Co.*, 112 F.3d 306, 309 (8th Cir. 1997) (holding that exclusion of expert’s opinion is proper “only if it is so fundamentally unsupported that it can offer no assistance to the jury”) (citation and internal quotation marks omitted)). The district court should resolve doubts in favor of admissibility. *Johnson*, 754 F.3d at 562. If the testimony is “within ‘the range where experts might reasonably differ,’ the jury, not the trial court, should be the one to ‘decide among the conflicting views of different experts.’” *Id.* at 564 (quoting *Kumho Tire Co. v. Carmichael*, 526 U.S. 137, 153 (1999)). It is “only if an expert’s opinion is so fundamentally unsupported that it can offer no assistance to the jury must such testimony be excluded.” *Nichols v. City of Mitchell*, 914 F. Supp. 2d 1052, 1066 (D.S.D. 2012) (Piersol, J.) (citing *Loudermill v. Dow Chem. Co.*, 863 F.2d 566, 570 (8th Cir.1988)). Similarly, any “[g]aps in the expert witness’s qualifications or knowledge generally go to the weight of the witness’s testimony, not its admissibility.” *Id.* (quoting 29 Charles Alan Wright & Victor James Gold, *Federal Practice and Procedure: Evidence* § 6265 (1997)).

Moreover, the “‘mere disagreement with the assumptions and methodology used does not warrant exclusion of expert testimony.’” *David E. Watson, P.C. v. United States*, 668 F.3d 1008, 1015 (8th Cir. 2012) (quoting *Synergetics, Inc. v. Hurst*, 477 F.3d 979, 956 (8th Cir. 2007)). This

can be explored with cross-examination and by the opposing party presenting its own expert witnesses. *Id.* Indeed, exclusion is not even appropriate where the expert has accepted a biased view of the facts to support their conclusions. *Munroe v. U.S. Xpress, Inc.*, No. CIV 06-4103, 2007 WL 2476763, at *2 (D.S.D. Aug. 27, 2007). Courts are vested with “great latitude” in determining whether expert testimony meets the requirements of Rule 702. *Allen v. Brown Clinic, P.L.L.P.*, 531 F.3d 568, 573 (8th Cir. 2008) (citing *Craftsmen Limousine, Inc. v. Ford Motor Co.*, 363 F.3d 761, 776 (8th Cir. 2004)).

In sum, any doubts regarding the usefulness of an expert’s testimony should be resolved in favor of admissibility. *Nichols*, 914 F. Supp. 2d at 1066 (citing *Finch*, 630 F.3d at 1062).

ARGUMENT

I. Carson’s Opinions Related to EP 433 Satisfy Federal Rule of Evidence, Rule 702

Sioux Steel’s argument that Carson’s opinions, as they relate to EP 433, should be stricken is contrary to the law. Carson’s opinion that EP 433 does not deal with non-free flowing materials is based on the clear wording of the code itself. As stated above, EP 433 is titled “Loads exerted by Free-Flowing Grain on Bins” and the code’s purpose specifically states that the code “presents methods of estimating the grain pressures with centrally loaded and unloaded bins used to store free-flowing, agricultural whole grain.” (Carson Aff., ¶ 19). Sioux Steel complains that Carson cannot cite to authority for that proposition, but it’s preposterous that he should have to do so. EP 433 states what is stated and, based on a plain reading, Carson does not believe EP 433 deals with non-agricultural whole grains nor does it deal with non-free flowing materials, specifically, soymeal. (*Id.*, ¶ 20). Sioux Steel does not bother to attack Carson’s methodology, but only his conclusion as it relates to EP 433, which should be decided by a jury. *See Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 154, 118 S. Ct. 512, 523, 139 L. Ed. 2d 508 (1997).

In fact, EP 433 does briefly discuss the possibility that agricultural whole grain can absorb water and may become non-free flowing (due to an increase of moisture of more than one to two percent) and that to prevent that, EP 433 recommends that such bins be designed, located, and managed to prevent grain moisture. (*Id.*, ¶ 21). This, by itself, demonstrates that EP 433 is not applicable to agricultural whole grain that becomes non-free flowing due to moisture and that measures need to be taken to avoid such a situation. (*Id.*)

Moreover, Sioux Steel continues to contend that Carson's opinions are contrary to EP 433. This is a mischaracterization of Carson's opinions. As shown above in Carson's deposition testimony and in his affidavit, Carson simply doesn't believe that EP 433 applies at all to the design of the Hopper Bin, which is based on his reading of the code backed by his extensive experience, education, skill, and knowledge of storage structures. This is not the sort of "*ipse dixit*" opinion that was excluded in *Pro Serv. Auto., L.L.C. v. Lenan Corp.*, 469 F.3d 1210, 1215 (8th Cir. 2006).

In *Pro Serv.*, the expert "offered only vague theorizing based upon general principles" and there was an "absence of any record evidence that [the expert] used reliable principles and methods or applied them reliability to the facts of this case to form his opinion." *Id.* That is contrary to the facts here. Carson's reading of EP 433 is simple. According to EP 433, the Hopper Bin emptied via funnel flow. (Carson Aff., ¶ 17). According to Carson's knowledge of engineering principles (also stated in paragraph 5.1.2.1 of EP 433) there are no overpressures in a funnel flow bin when free flowing agricultural grains are used (this means that the highest pressure exacted on the under-designed vertical seams would have been when the bin was initially loaded aka gravity induced pressure). (*Id.*, ¶ 18). Because the Hopper Bin did not fail when loaded, or during the four and half days before it was emptied; the under-designed vertical seams did not cause the Hopper Bin to fail. (*Id.*, ¶ 28). It was only a dynamic load that would

have caused the Hopper Bin to fail. However, according to EP 433 and Carson's opinions, a dynamic load would only occur in a bin that empties via funnel flow if there was a non-agricultural whole grain used, specifically soymeal, which is a non-free flowing material. (*Id.*, ¶ 20, 23-27). Moreover, the pressure from this dynamic load would have started a failure at the bottom of the Hopper Bin rather than the top. (*Id.*, ¶ 28).

While Sioux Steel may disagree with Carson's opinions, such disagreement cannot serve as a basis to exclude. *David E. Watson, P.C. v. United States*, 668 F.3d 1008, 1015 (8th Cir. 2012). Carson's opinions are based upon an extensive and impressive list of qualifications as stated earlier in this brief. Carson's opinions are also based on his review of a wide-range of documents, including viewing the security video of the Hopper Bin's collapse. Carson does exactly what Federal Rule of Evidence, Rule 702 prescribes; he applies his knowledge, experience, and skill to form an opinion, based on generally accepted principles, to form an opinion that will ultimately assist the jury. The specific principles to which Carson's opines on are clear; that is, the Hopper Bin collapsed because it stored a non-free flowing and non-agricultural whole grain material, both which were not contemplated by EP 433.

At best, if this Court believes there exists any doubts regarding the usefulness of an expert's testimony, such doubt should be resolved in favor of admissibility. *Nichols*, 914 F. Supp. 2d at 1066 (citing *Finch*, 630 F.3d at 1062). Carson's opinions rest on good grounds based on what is known, and, as such, it should be tested by the adversary process with competing expert testimony and cross-examination, rather than excluded by the court at the outset." *Johnson v. Mead Johnson & Co., LLC*, 754 F.3d 557, 562 (8th Cir. 2014).

Given this Court's liberal admission of expert testimony, Sioux Steel's motion to strike should be denied.

II. Carson's Opinions Related to the Air Cannons are Reliable

Sioux Steel mischaracterizes Carson's opinions as they relate to the air cannons in a misguided attempt to exclude said testimony. Sioux Steel latches on to the strength of Carson's conclusion rather than attacking his methodology. However, a motion to exclude an expert must focus "solely on principles and methodology, not on the conclusions that they generate." *Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 580, 113 S. Ct. 2786, 2790, 125 L. Ed. 2d 469 (1993). "[T]he test under Daubert is not the correctness of the expert's conclusions but the soundness of his methodology." *Daubert v. Merrell Dow Pharm., Inc.*, 43 F.3d 1311, 1318 (9th Cir. 1995). This Court should not exclude expert testimony where the application of the "methodology [is] reliable." *Bonner v. ISP Techs., Inc.*, 259 F.3d 924, 929 (8th Cir. 2001). "Daubert quite clearly forbids trial judges to assess the validity or strength of an expert's scientific conclusions, which is a matter for the jury." *Gen. Elec. Co. v. Joiner*, 522 U.S. 136, 154, 118 S. Ct. 512, 523, 139 L. Ed. 2d 508 (1997).

Carson's ultimate opinion is that the Hopper Bin did not fail because of Sioux Steel's mathematical errors related to the vertical seams. (*See generally* Carson Report). Carson believes that the cause for the failure of the Hopper Bin was either due to "additional pressures exerted on the material and on the hopper section of the silo because of the firing of air cannons or...more likely the failure occurred because of the sudden collapse of an arch or a rathole." (Carson Depo., 53). Carson believes that the cause of the Hopper Bin failure was most likely caused by the collapse of an arch or a rathole, but further believes that the collapse could have occurred because of the presence and use of the air cannons. The basis for this opinion is that dynamic loads would result for firing the air cannons, which were pressurized to 140 psi. (Carson Report, 13). Each time the air cannons were fired, additional pressure was exerted on

the Hopper Bin, “the magnitude of which was at least ten times greater than the gravity-induced pressures acting on the hopper walls.” *Id.*

Sioux Steel fails to inform this Court why Carson’s opinions are wrong, but instead, simply takes issue with Carson’s statement that he only viewed the air cannons as a possible source of causing the Hopper Bin’s failure, not a probable source. However, the reasoning for said statement was because Carson believed that the most probable cause of failure was dynamic forces created from the use of soymeal. This Court should view Carson’s opinions together, in that, Carson believes with a reasonable degree of engineering certainty that the mathematical errors as to the vertical seams did not cause the failure to the Hopper Bin and that, instead, such failure was either caused by the use of a non-free flowing material or because of the air cannons. Carson’s opinion that the mathematical errors were not the cause of failure stems from the existence of two other causes that when taken together were the likely culprits for the Hopper Bin’s failure. As such, it is for the jury to decide whether or not Carson’s conclusions are valid. As Sioux Steel failed to address issues with Carson’s methodology as it relates to the air cannons, Sioux Steel’s motion to strike should be denied in this regard.

III. J & J’s Prior Contact with Chad Kramer and Sioux Steel Does Not Serve as a Basis to Exclude Carson as an Expert for KC Engineering

As stated in *United States v. Salamanca*, 244 F. Supp. 2d 1023, 1025 (D.S.D. 2003), district courts “have the inherent power to disqualify expert testimony, if necessary, to protect privileges, which would be breached if an expert were to switch sides, and to preserve public confidence in the fairness and integrity of judicial proceedings.” *United States v. Salamanca*, 2003 DSD 1, ¶ 2, 244 F. Supp. 2d 1023, 1025 (D.S.D. 2003)(citations omitted). “Nevertheless, disqualification is a drastic measure which courts should hesitate to impose except when absolutely necessary.” *Id.* (citations omitted)(emphasis added). A two-part test governs the disqualification determination: (1) Did the first party have an objectively reasonable belief that a

confidential relationship existed and (2) did the party disclose any confidential information to the expert? *Id.* at ¶ 3. “The party seeking the disqualification bears the burden of proving confidentiality and its non-waiver.” *Id.*

Opposing counsel rests their entire argument to exclude Carson on an alleged breach of confidentiality based entirely on the case of *Salamanca*, 244 F. Supp 2d 1023, cited above. While the court in *Salamanca* did disqualify the expert at question, however, the facts of that case are entirely dissimilar from the facts of this case. In fact, the district court in *Salamanca* noted that “this case differs from other cases because it does not involve one party’s discussion with an expert whom the opposing party later retains.” *Id.* at ¶ 5 (emphasis added).

In *Salamanca*, a criminal proceeding, the defendant sought to disqualify an expert retained by the government. *Id.* at ¶ 1. The expert had been a court appointed interpreter for the defendant and defendant claimed that because the expert had interpreted conversations between defendant and his attorney, a conflict of interest existed such that said expert should be disqualified. *Id.* Defendant “neither used [the interpreter] as an expert nor discussed areas of [the interpreter’s] expertise. Instead, [the interpreter] was a necessary component” of the defendant’s communications with his attorney. *Id.* The court went so far as to call the interpreter the defendant’s “attorney’s agent.” *Id.* Furthermore, given that the attorney-client privilege extends to necessary intermediaries, the court found that the defendant would have had an objectively reasonable expectation that his communications with the interpreter would have been confidential. *Id.* Moreover, these confidential communications directly related to the underlying criminal prosecution. *Id.* at ¶ 7. It was based on the aforementioned facts that the district court in *Salamanca* disqualified the interpreter from being an expert on behalf of the state. *Id.* at ¶ 12.

A. There Was No Reasonable Expectation of a Confidential Relationship between J & J and Sioux Steel

The relationship between J & J and Kramer was nothing like the relationship between the defendant and his interpreter in *Salamanca*. In fact, Kramer's communications with J & J is more akin to an initial consultation, which is a sort of contact that various courts have held does not justify disqualification. There can be no expectation of confidentiality in such circumstances.

In *Northbrook Digital LLC v. Vendio Servs., Inc.*, 2009 WL 5908005, at *1 (D. Minn. Aug. 26, 2009), plaintiff attempted to disqualify an expert retained by defendant for conflict of interest. Plaintiff was considering a patent infringement suit against an unrelated party and plaintiff's attorneys met with an expert who specialized in computer science to evaluate said infringement claims. *Id.* Plaintiff's counsel met with the expert for approximately ninety minutes, where they discussed plaintiff's patents and issued to be raised in litigation. *Id.* The court noted that no confidentiality or retainer agreement was entered into and the record was silent as to the topic of confidentiality. *Id.* The record lacked "any memoranda or correspondence...that memorializes any of the discussion from that meeting." *Id.* Plaintiff dropped its patent infringement lawsuit that was the subject of its attorneys' conversations with the expert but moved to disqualify the expert in a different patent infringement lawsuit in which the expert was retained by the defendant. *Id.* In deciding the issue, the district court held that:

But in circumstances where the expert only performs an initial consultation, so a party can decide whether to retain the expert, the party generally cannot claim a reasonable expectation of a confidential relationship.

Id. at * 2 (citing *Hewlett-Packard*, 330 F.Supp.2d at 1096097 (holding that one-hour initial consultation, where an expert may have opined about the merits of several patents, was not enough to show reasonable expectation of confidentiality) (emphasis added)).

The court went on to discuss how there were no efforts to protect the information; there was no written agreement or even an informal letter to suggest sensitive information was at stake; and that there was no testimony in the record that either the plaintiff or the expert discussed confidentiality. *Id.* at * 3. In fact, “if there was significant concern about confidentiality” it would be reasonable for a party to “make some effort to guard their disclosures.” *Id.* As such, the district court held that the plaintiff did not meet its burden to show it had an objectively reasonable expectation of a confidential relationship where the contact between the plaintiff and the defendant was a single consultation, before the case was commenced, where no amounts were charged and where no further participation ensued. *Id.*

Similarly, in *Mays v. Reassure Am. Life Ins. Co.*, 293 F. Supp. 2d 954 (E.D. Ark. 2003), plaintiff sought to disqualify defendant’s expert witness, which was an accounting firm. Plaintiff was a successor administrator of an estate who filed a declaratory judgment seeking benefits of a life insurance policy issued by the defendant. *Id.* During the pendency of the litigation, plaintiff’s attorney initially contacted an accounting firm about the possibility of serving as a successor administrator. *Id.* Plaintiff’s counsel and the accounting firm held a meeting, which was prefaced by a statement by plaintiff’s attorney that anything discussed would be confidential. *Id.* at 956. The meeting lasted sixty to ninety minutes in which the plaintiff contended confidential and privileged information was exchanged. *Id.* Thereafter, a senior member of the accounting firm was retained to serve as an expert for the defendant. *Id.*

In holding that the expert was not to be disqualified the court stated that “[n]othing in the Federal Rules limits the right of a party to call as its expert witness a person who might have been consulted by an opposing party.” *Id.* at 957 (citing *Procter & Gamble Co. v. Haugen*, 184 F.R.D. 410, 412-13 (D.Utah 1999)(no provision in Federal Rules providing for disqualification where expert has consulted with other side). The court went on to state that:

The Court is not persuaded that it is objectively reasonable to conclude that a confidential relationship existed between the CPA Firm...and plaintiff. They had a single meeting, the discussion generally concerned the CPA Firm's possible representation as an administrator of the estate. [Plaintiff] did not provide the CPA Firm specific facts about the case or confidential documents to review. They did not discuss critical litigation strategy. The Court must conclude that the single meeting amounted to no more than an inquiry as to whether someone in the CPA Firm could serve as successor administrator.

Id.

The court further found that it was highly unlikely that “there was any detailed or involved discussion concerning litigation strategies, the strengths and weaknesses of each side, the witnesses to be called, the types of experts to be retained and anticipated defenses, particularly as the discussion centered on the work of an administrator and the practicalities of the CPA Firm assuming that role.” *Id.* (emphasis added). Moreover, any information that could have been considered confidential “was already a matter of media attention and therefore not confidential.” *Id.* As such, disqualification was not warranted. *Id.* See also *Larson v. Rourick*, 284 F. Supp. 2d 1155 (N.D. Iowa 2003)(“Where the expert met once with counsel, was not retained, was not supplied with specific data relevant to the case, and was not requested to perform any services, courts have found that the evidence supports the finding that the meeting was a type of informal consultation rather than the commencement of a long-term relationship” and thus no confidential relationship existed); *Koch Ref. Co. v. Jennifer L. Boudreau M/V*, 85 F.3d 1178, 1180 (5th Cir. 1996)(confidential relationship only exists when “the record supports a longstanding series of interactions, which have more likely than not coalesced to create a basic understanding of [the retaining party’s] modus operandi, patterns of operations, decision-making process, and the like.”).

As demonstrated by the case law above, Kramer could not have had an objective and reasonable belief that his communications with J & J were confidential. Kramer’s contact with J & J was a mere initial consultation to see whether J & J would perform a review of the Hopper

Bin design.⁷ There were no longstanding series of interactions, but a few exchanges of communications and a telephone call that did not result in J & J being hired to perform any services. As stated in *Northbrook*, 2009 WL 5908005, at *1 (D. Minn. Aug. 26, 2009), there can be no reasonable expectation of a confidential relationship in an initial consultation with an expert.

Furthermore, the record is clear that Kramer took no efforts to protect the supposedly confidential information; Sioux Steel does not submit any sort of written agreement or even an informal letter to suggest sensitive information was at stake; and Sioux Steel fails to present any sort of testimony that he and J & J discussed confidentiality. If Sioux Steel was so worried about their confidential design, it would be reasonable for Sioux Steel to have taken actions to “guard their disclosures.” *Id.* This is further demonstrated by Sioux Steel’s glaring omission in its failure to submit an affidavit by Kramer about the confidential nature of his communications with J & J or addressing the fact that the record is completely devoid of any documentary evidence demonstrating that the communications between the two parties was intended to be confidential.

Given the nature of the relationship between J & J and Kramer, Sioux Steel has failed to demonstrate that Kramer would have had an objective and reasonable belief that a confidential relationship existed between the two parties.

⁷ Sioux Steel cites to the Engineering Code of Ethics for Professional Engineers, specifically the rule that states that an engineer “should not participate or represent an adversary...in which the engineer has gained particular specialized knowledge on behalf of a former client or employer.” (Doc. 35, p. 21). First, the rule assumes Kramer was a client, which he was not. No retention agreement or contract was ever entered into between Kramer and J & J and, in fact, J & J specifically noted that there was no job to be had. Second, as noted by Sioux Steel, Carson is not a professional engineer and would not be subject to these rules, even if they were enforceable. This is even admitted by Sioux Steel. (*Id.* (referring to itself as a ‘potential client’)).

B. Sioux Steel Has Failed to Prove that Confidential Information was Ever Seen by Carson

Moreover, Sioux Steel has failed to demonstrate that any confidential information was disclosed to J & J. At best, Sioux Steel refers to generic “design plans” that were given to J & J. However, Sioux Steel cannot produce exactly what these plans were. In all likelihood, these were the same plans that were produced to KC Engineering and are not privileged or confidential documents in this litigation. Information that is confidential “include[s] discussion of the retaining party’s strategies in the litigation, the kinds of experts who are expected to be retained, the party’s views of the strength and weaknesses of each side, the role of each of the witnesses to be hired, and anticipated defenses. Purely technical information is not confidential.” *Larson v. Rourick*, 284 F. Supp. 2d 1155 (N.D. Iowa 2003)(emphasis added). As in *Salamanca*, the information communicated to the expert that was disqualified was attorney-client communications that was privileged in the lawsuit. Here, the only possible “confidential” information exchanged was design plans that have or should have already been produced in this litigation. The purpose of the disqualification rule is to prevent one party from having an unfair advantage in litigation based on prior communication that party’s expert had with the other party. That is not the case here.

Carson has never had contact with Sioux Steel prior to this litigation; he was not part of the contact Kramer made with Sioux Steel in 2012; he only knew about said contact after conducting a conflict check in 2016; and he has no knowledge nor has he ever seen any documents that Sioux Steel may have sent over to J & J as part of that initial consultation in 2012. Sioux Steel cannot show any sort of prejudice or provide any reason whatsoever why Carson should be excluded based on brief, pre-litigation contact that Kramer initiated with J & J in which Carson was not involved and from which J & J was not hired. It should be even more glaring to this Court that while Sioux Steel claims a breach of confidentiality that it cannot

identify nor produce what supposed documents were sent to J & J. As such, Sioux Steel has failed to prove that J & J was in possession of confidential documents or confidential information and that said information now gives KC Engineering some sort of advantage in this litigation.

CONCLUSION

For the reasons stated above, this Court should deny Sioux Steel's Motion to Strike.

Dated this 6th day of April, 2018.

/s/ Michael F. Tobin

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